



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/518,136

08/11/2005

Yasuo Kitaoka

10873.1571USWO

5287

53148

7590

04/07/2008

HAMRE, SCHUMANN, MUELLER & LARSON P.C.

P.O. BOX 2902-0902

MINNEAPOLIS, MN 55402

EXAMINER

VU, MINDY D

ART UNIT

PAPER NUMBER

2884

MAIL DATE

DELIVERY MODE

04/07/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/518,136	Applicant(s) KITAOKA ET AL.	
	Examiner MINDY VU	Art Unit 2884	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,5-7 and 12-20 is/are pending in the application.
- 4a) Of the above claim(s) 5-7 and 16-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3,12-15 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 3,5-7 and 12-20 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to Applicant's amendment filed January 10, 2008.

Claim Objections

Claim 3 is objected to because of the following informalities: the status identifier should be "currently amended." Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over White (US 2005/0001175) in view of Gunpei (JP 06-317526).

With respect to independent Claim 3, White discloses a fluorometer for detecting intensity of fluorescence generated from a substance that is excited by light emitted from a light source (abstract, Fig. 1), comprising:

- n (n is an integer of not less than 2) narrow-band-pass filters for transmitting light in different limited wavelength regions of the fluorescence (Paragraph 0015), and
- n light-receiving portions having one-to-one correspondence with the n narrow-band-pass filters (Paragraphs 0037 & 0039),
- wherein an intensity P_1 of fluorescence transmitted through a first narrow-band-pass filter 11 is detected by a first light-receiving portion (at the measuring path 12), and
- wherein fluorescence reflected from an $(n-1)$ -th narrow-band-pass filter 11 is allowed to enter an n -th narrow-band-pass filter 17, and an intensity P_n of fluorescence transmitted through the n -th narrow-band-pass filter 17 is detected by an n -th light-receiving portion (at the measuring path 18).

White discloses the detection of the intensities of the fluorescence (Paragraphs 0037 & 0039). White omits a relative ratio between the intensities is determined. Gunpei discloses calculating a ratio between the detected intensities is a well known technical feature in fluorescence analysis (Paragraphs 0002-0007). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to

determine a relative ratio between the intensities to detect a wavelength width of a spectrum since it is a well known technical feature in view of analyzing the sample.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over White (US 2005/0001175) in view of Gunpei (JP 06-317526) and further in view of Tatsuro (JP 2002-350732).

With respect to Claim 12, White discloses the light source is a laser instead of a light-emitting diode (LED). However, Tatsuro discloses selecting a light emitting diode as the excitation light source of fluorometric analysis is a well known technical matter (Paragraph 0007). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to use a light emitting diode as a light source in view of simplifying the circuit (Paragraph 0006).

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over White (US 2005/0001175) in view of Gunpei (JP 06-317526) and further in view of Shigero et al. (JP 2002-181706).

With respect to Claim 13, White discloses the light source is a laser and silent about the laser being a wavelength-variable semiconductor laser. Shigero et al. discloses selecting a wavelength-variable laser as an excitation light source of fluorescence analysis is a well-known technical feature (Paragraph 0021). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention

was made to provide a wavelength-variable semiconductor laser in view of analyzing the sample.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over White (US 2005/0001175) in view of Gunpei (JP 06-317526) and further in view of Kohei et al. (JP 2000-304699).

With respect to Claim 14, White discloses the substance but lacks a rare-earth element is added to the substance. Kohei et al. discloses a rare-earth element can be the subject to be analyzed in fluorescence analysis (Paragraph 0021). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to include a rare-earth element in view of choosing different types of substances to be analyze.

Claims 15 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over White (US 2005/0001175) in view of Gunpei (JP 06-317526) and further in view of Hidekazu (JP 2001-124696).

With respect to Claims 15 and 20, White and Gunpei discloses the detected intensities of the fluorescence of one or more substances but omits a wavelength width of a spectrum of the fluorescence generated from the substance is detected by comparing the detected intensities P_1, P_2, \dots, P_n of the fluorescence. Hidekazu discloses a technique for identifying a material based on fluorescence spectral analysis. Furthermore, a technique for identifying a material using spectral analysis, in which the

difference in spectral form based on the ratio of measurement intensities at plural wavelengths is judged to identify the material (Paragraph 0027). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply the steps as suggested by Hidekazu in view of analyzing the sample.

Response to Arguments

Applicant's arguments filed January 10, 2008 have been fully considered but they are not persuasive.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a single light source) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicant's argument that "a relative ratio is determined to detect a wavelength width", a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MINDY VU whose telephone number is (571)272-8539. The examiner can normally be reached on M-F 9am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/Constantine Hannaher/
Primary Examiner, Art Unit 2884**

mv